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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,240

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Dale J. Carter

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MORRISS OBRYANT COMPAGNI, P.C.
734 EAST 200 SOUTH
SALT LAKE CITY, UT 84102

EXAMINER

TRAN, HENRY N

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/798,240	Applicant(s) CARTER ET AL.	
	Examiner Henry N. Tran	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-23 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-23 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/24/08 has been entered. Claims 1-10, 12-23 and 25 are pending in this application.

Response to Arguments

1. Applicants' arguments, see pages 11-12 of the amendment filed 4/24/08, with respect to objections to the drawings and the specification have been fully considered and are persuasive due to the amendments to the specification and the claims. The objections to the drawings and the specification have been overcome.

2. Applicants' arguments with respect to claims 1-10, 12-23 and 25 have been fully considered but they are not persuasive because of the following reasons.

(i) In response to applicants' argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

(ii) Applicants argued that Davis fails to teach an embodiment that combines the motion sensor and the capacitive switch. The examiner respectfully disagrees because Davis does teach the combination of different types of sensors; for example, Davis Figs. 8 and 9 shows a state diagram and a method illustrating the use of a combination of different types of sensors; particularly, Davis says; “a determination is made whether the user has grasped, picked up **and**/or squeezed the housing of the wireless telephone, according to one of the aspects of this invention”, [*emphasis added by the Examiner*], see col. 8, lines 13-16; which does suggest or teach the combination of different types of sensors: the capacitive sensor 304, see Fig. 3, col. 5, lines 51-64, or the plate sensor, see Fig. 7, col. 6, lines 47-60, with the motion sensor 504, see Fig. 5, col. 6, lines 7-18, or the light sensor 604, see Fig. 6, col. 6, lines 33-47, for providing contact data (“signal”) to the controller for activating a predetermined function.

(iii) Applicants argued that Gay fails to teach any application of its magnetic sensor system. The examiner respectfully disagrees because Gay does teach the use of its magnetic sensor system for controlling computer graphics displayed on a computer display 90, see Fig. 8, and col. 3, lines 28- 51.

The rejections of claims 1-10, 12-23 and 25 are therefore maintained; and are recited herein below.

Claim Rejections -35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 8, 14-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Letters Patent No. 6,292,674 to Davis in view of U.S. Letters Patent No. 5,394,029 to Gay et al (hereinafter referred to as “Gay”)

Regarding claims 1 and 2, Davis teaches a portable electronic appliance, which is a mobile telephone 10, comprising: a portable electronic appliance having a housing 12, a data entry device 26 and a display screen 30; a first sensor 504 (a motion sensor 504), see Fig. 5, and col. 6, lines 7-18; and a second sensor (304) (a capacitive switch 304), see Fig. 3, and col. 5, lines 51-64; particularly, Davis does suggest or teach the combination the combination of different types of sensors: the capacitive sensor 304, see Fig. 3, col. 5, lines 51-64, or the plate sensor, see Fig. 7, col. 6, lines 47-60, with the motion sensor 504, see Fig. 5, col. 6, lines 7-18, or the light sensor 604, see Fig. 6, col. 6, lines 33-47, for providing contact data (“signal”) to the controller for activating a predetermined function (Davis says: “a determination is made whether the user has grasped, picked up and/or squeezed the housing of the wireless telephone, according to one of the aspects of this invention”, [*emphasis added by the Examiner*], see Figs. 8 and 9, col. 7, lines 15 to col. 8, line 40.

However, Davis does not teach that the first sensor 504 is a magnetic sensor system used for determining orientation of the portable electronic appliance in three dimensions relative to a

constant magnetic field, and wherein the first sensor enables the portable electronic appliance to determine a three dimensional orientation relative to the constant magnetic field of the earth.

Gay, Figs. 3 and 8, teaches a computer device, which includes a motion sensor input device (80) comprising a magnetic sensor system (comprising Hall generator pairs 38, 40, and 42) for determining orientation of the portable electronic appliance in three dimensions relative to a constant magnetic field, and wherein the sensor input device enables the computer device to determine the device three dimensional orientation relative to the constant magnetic field of the earth, see abstract, col. 3, lines 12-51, and col. 4, lines 17-35. Because both Davis patent and Gay patent teach the use of movements of a sensor for providing the computer inputs. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the magnetic sensor system as taught by Gay for the Davis motion sensor to achieve the predictable results of detecting the movements and/or orientation of the device housing for providing the computer inputs. By this rationale, claims 1 and 2 are rejected.

Regarding claims 3-6 and 8, Davis further teaches: (i) the second sensor (304) is a capacitive sensing touch pad, see col. 5, lines 51-60; (ii) the second sensor is a pressure sensitive switch (the user grasps and/or squeezes the housing); see Fig. 2, col. 5, lines 29-36); and (iii) the second sensor is comprised of a plurality of capacitance sensitive touchpads, each is conforming to arcuate surfaces (704 and 706) of the device housing (702), see Fig. 7, and col. 6, lines 48-58.

Claim 3-6 and 8 are, either directly or indirectly, dependent upon the base claim 1; and are therefore rejected on the same reasons set forth in claim 1, and by the reasons noted above.

Regarding claims 14-19 and 21, which are method claims corresponding to the apparatus claims 1-6 and 8; and are therefore rejected on the same basis set forth in claims 1-6, and 8 discussed above.

3. Claims 7, 9, 10, 12, 13, 20, 22, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Gay (hereinafter referred to as “Davis-Gay”) as applied to claims 1, 3, 14, and 16 above, and further in view of U.S. Letters Patent No. 7,088,343 to Smith et al (hereinafter referred to as “Smith”).

Davis-Gay teaches generally all except for: (i) the capacitance sensitive touchpad is capable of proximity sensing; (ii) the second sensor is a general purpose touchpad that senses touch position or proximity of a touching object to the touchpad; (iii) the second sensor is comprised of one single-layer touchpad that senses touch or proximity of a touch object to the touchpad; and (iv) the function that is activated or deactivated using the second sensor is for adjusting volume.

Smith, Figs. 1-4, teaches a portable electronic device comprising a capacitive touchpad 102, which is comprised of one single-layer touchpad disposed at an outside edges 112 of the device housing 104; wherein, the touchpad is capable of proximity sensing, or performing a functional operation such as adjusting volume; see Figs. 2-5; col. 4, lines 33-52; col. 10, lines 45-58; col. 11, lines 31, 61-66; and col. 12, lines 5-33.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the capacitive touchpad as taught by Smith in the Davis-Gay device because this would provide an improved portable computer device having an ergonomic touchpad with

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enhanced functionality and ease of use, see Smith, col. 10, lines 45-58. Claim 7, 9, 10, 12, 13, 20, 22, 23, and 25 are therefore rejected on the same basis set forth in claim 1, and by the rationale discussed above.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. It's U.S. Letters Patent No.6,982,699 issued to Lenssen et al., which teaches the use of its magnetic sensor system 100 for controlling computer graphical elements 204 displayed on a computer display 202, see Figs. 1 and 2.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry N. Tran whose telephone number is 571-272-7760. The examiner can normally be reached on M-F 8:00-4:30.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Henry N Tran/
Primary Examiner, Art Unit 2629
July 20, 2008